

## **Air Quality Improvement Program (AQIP) Discussion Paper**

*August 19, 2008 Workshop*

### Background

In October 2007, Governor Schwarzenegger signed Assembly Bill (AB) 118 (Nunez, 2007), which creates three new incentive programs. AB 118 provides the California Energy Commission (CEC) with \$120 million per year for advanced vehicle and fuel projects that help California meet its climate change goals, and the Bureau of Automotive Repair (BAR) with \$30 million annually for vehicle retirement and repair programs.

AB 118 also provides ARB with \$50 million annually for the Air Quality Improvement Program (AQIP). AB 118 authorizes the AQIP to fund a variety of air quality incentive projects, including low-emission vehicles and equipment, air quality research, and advanced technology workforce training. ARB shall develop proposed AQIP guidelines and FY 2009-10 AQIP funding targets, which plans to bring to the Board for its consideration in March 2009.

### Statutory Language

*"The primary purpose of (the AQIP) shall be to fund projects to reduce criteria air pollutants, improve air quality, and provide funding for research to determine and improve the air quality impacts of alternative transportation fuels and vehicles, vessels, and equipment technologies."* (Health & Safety Code (HSC), Section 44274(a))

AB 118 allows for the AQIP to fund projects in eight general categories:

1. On- and off-road equipment projects.
2. Projects to reduce off-road gasoline exhaust and evaporative emissions.
3. Research projects to determine the air quality impacts of alternative fuels.
4. Projects that augment the University of California's agricultural experiment station and cooperative extension programs for research to increase sustainable biofuels production and improve the collection of biomass feedstock.
5. Incentives for consumers to replace lawn and garden equipment.
6. Incentives for medium- and heavy-duty vehicles and equipment mitigation including:
  - a. Lower emission school bus programs.
  - b. Electric, hybrid, and plug-in hybrid on- and off-road medium- and heavy-duty equipment.
  - c. Regional air quality improvement and attainment programs implemented by the state or districts in the most impacted regions of the state.
7. Workforce training initiatives related to advanced energy technology designed to reduce air pollution.
8. Incentives to reduce emissions from high emitting light-duty vehicles.  
(HSC Section 44274(c))

### Possible FY 2009-10 AQIP Guiding Principles: Vehicle and Equipment Projects

ARB is considering directing significant AQIP funding towards on-the-ground vehicle and equipment project categories that provide an immediate emission reduction benefit. Potential guiding principles for FY 2009-10 AQIP vehicle and equipment projects include:

For Discussion Only

- Attain Ambient Air Quality Standards: Projects should help California meet federal ambient air quality standards by spurring deployment of technologies to meet our State Implementation Plan (SIP) “black box” commitments. Early deployment is critical to ensure significant technology penetration by 2024. Projects should also help achieve state air quality standards, reduce toxic air contaminant emissions, and complement California’s efforts to meet its climate change goals.
- Ready for Deployment: Projects should be cost-effective and be ready for on-the-ground immediate deployment. (Vehicle and equipment technologies that could help meet SIP “black box” commitments but which are not ready for deployment could potentially be considered for funding as AQIP demo projects)
- Modify Consumer Choice: Incentives should be focused on inducing vehicle and equipment purchases that would not otherwise have occurred. For example, an advanced technology plug-in hybrid car might be a good candidate for incentive funding if needed to accelerate production and consumer acceptance. Conversely, a traditional hybrid car may not be a good candidate for funding since production volumes and consumer demand is already high.
- Consider Funding Need: Project types that do not have access to other incentive program funds, such as Carl Moyer Program and Goods Movement Emission Reduction Bond Program funds, would be prioritized. Eligible project categories should also not overlap with those AB 118 projects being funded by the CEC.

The universe of possible vehicle and equipment project categories would include the following. ARB staff welcomes suggestions for additional possible vehicle and equipment project categories to consider:

<ul style="list-style-type: none"> <li>▪ Electric light-duty vehicles</li> <li>▪ Electric off-road equipment</li> <li>▪ Fuel cell light-duty vehicles</li> <li>▪ Hybrid light-duty vehicles (plug-in)</li> <li>▪ Hybrid med- &amp; heavy-duty vehicles</li> <li>▪ Hybrid off-road equipment</li> <li>▪ Smart Ways truck retrofits</li> </ul>	<ul style="list-style-type: none"> <li>▪ Alt fuel light-duty vehicles</li> <li>▪ Alt fuel med- &amp; heavy-duty vehicles</li> <li>▪ On- and off-road repower projects</li> <li>▪ On- and off-road retrofit projects</li> <li>▪ Car scrap and repair projects</li> <li>▪ Lawn &amp; garden equip. replacement</li> <li>▪ Others?</li> </ul>
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Potential research and workforce training projects must meet the more detailed requirements for these source categories identified by AB 118 (HSC Sections 44274(c)(1), (4), and (7)). Staff is seeking comment regarding potential guiding principles for prioritization of research and workforce training projects.

#### Definition of Surplus Emission Reductions

AB 118 requires that AQIP projects achieve surplus emission reductions (HSC Section 44271(c)). ARB staff is interested in comments regarding how surplus

emission reductions are defined for the AQIP program. Possible scenarios regarding surplus emission reductions include:

- Example 1: A rule requires a fleet comply with a NOx and PM emissions target by January 1, 2010. A program applicant would like funding for a project that achieves these reductions by December 15, 2009. ARB staff's belief is that, as with the Carl Moyer Program, this project should be completed well before the compliance deadline to be considered truly surplus for NOx and PM. ARB staff welcomes comments regarding how far in advance of a rule a project should be complete to be considered surplus.
- Example 2: A vehicle fleet is subject to a rule targeting NOx emission reductions. Should an incentive for purchase of a new vehicle which will also achieve ancillary PM emission reductions be considered surplus? ARB staff's preliminary view is that if the only rule-compliant technology (such as a new vehicle purchase) achieves both NOx and PM emission reductions, then the PM reductions would have occurred in any event and are therefore not surplus to the rule. If a rule-compliant technology that reduces only NOx exists, then a project that complies with the rule for NOx but also reduces PM may be surplus.
- Example 3: ARB's Zero Emission Vehicle (ZEV) regulation requires that vehicle manufacturers produce a certain mix of zero- and near-zero-emission light-duty vehicles by certain dates. However, no mandate exists for consumers to purchase such vehicles. ARB staff is proposing that incentives for consumers to purchase certain advanced technology ZEV's, such as plug-in hybrid electric vehicles, be considered surplus for the purposes of the AQIP.

#### Possible AQIP Vehicle and Equipment Project Funding Mechanisms

Should ARB solicit and fund projects directly, pass on funds to a third party (such as an air district or equipment vendor) or use an alternate funding mechanism? In many cases, the project type is likely to dictate the most effective solicitation mechanism. Therefore, the AQIP program may ultimately utilize a variety of solicitation mechanisms for the multiple types of projects funded. For example, a \$500,000 lawn mower replacement program would likely be funded at the local level on a first-come, first-serve basis. In this case, ARB might hold a competitive solicitation among air districts and other local entities to determine who could most effectively run such a program. On the other hand, a hybrid heavy-duty vehicle incentive program might lend itself to the use of vouchers, which could lend itself to ARB working directly through vehicle vendors. Examples of possible solicitation mechanisms could include:

- ARB Solicits Projects: ARB solicits projects directly from eligible vehicle and/or equipment owners (Examples: ARB's Carl Moyer Program Multi-District Solicitation, \$25M Grant Program for Public Agency Construction Equipment)
  - Pros: Central/seamless application process for applicants, simpler oversight and accountability
  - Cons: Less local control over projects

- **Air Districts Solicit Projects:** The solicitation is open to air districts (and/or other third parties) which in turn solicit and fund projects in predetermined eligible source categories. (Example: Carl Moyer Program and \$1B Goods Movement Emission Reduction Bond Program)
  - Pros: More local control over projects
  - Cons: More complex for applicants, less central oversight/accountability
- **Vendors Solicit Projects:** ARB could also solicit projects from vehicle or equipment vendors (or other third parties) to fund vouchers for the incremental cost of a low-emission vehicle or piece of equipment on a first-come, first-serve basis. (Example: Carl Moyer Program Pilot Off-Road Equipment Voucher Program)
  - Pros: Simple and seamless one-step process for equipment purchasers
  - Cons: Less opportunity for oversight and accountability and funding of only the most cost-effective projects
- **Lending Institutions Solicit Projects (Loan Program):** ARB funds low-interest loans or loan guarantees for low-emission equipment (assuming statute is amended to allow such projects). In this case, ARB might solicit projects from lending institutions.
  - Pros: AQIP funds go further than with grants and aren't required to be surplus
  - Cons: Less experience with loan-type programs

#### **Draft Schedule for AQIP Development and Board Consideration**

<b>Milestone</b>	<b>Date</b>
✓ <b>First Public Workshop (Sacramento):</b> Program introduction and discussion of priorities (joint workshop with the CEC)	April 2, 2008
<b>Second Public Workshop (Sacramento):</b> Discuss potential AQIP guiding principles, funding priorities, and solicitation mechanisms	Aug 19, 2008
<b>Third Public Workshop (LA &amp; Sac):</b> Share draft regulatory language, and draft FY 2009-10 project category funding targets and solicitation mechanisms	Nov 2008
<b>Final Public Workshop (SJV &amp; Sac):</b> Share updated draft regulatory language, and draft FY 2009-10 Funding Plan	Jan 2009
Release proposed regulatory package and FY 2009-10 Funding Plan	Feb 2009
<b>Board Meeting:</b> Board considers proposed regulatory language and FY 2009-10 Funding Plan	<b>March 2009</b>

For more information regarding AB 118, visit: <http://www.arb.ca.gov/msprog/aqip/aqip.htm>